

## **REMARKS**

Claims 1-57 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

## **Supplemental IDS**

A supplemental information disclosure statement was filed on January 13, 2004 in connection with the present application. A copy of this submission along with a return postcard evidencing receipt is enclosed for your convenience. If not already done so, please consider the references cited in this submission and forward acknowledge of the same to the Applicant.

## **REJECTION UNDER 35 U.S.C. § 101**

Claims 1-57 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. This rejection is respectfully traversed.

Applicant's invention is directed generally to an apparatus for processing trading orders. Of particular interest, pending claims recite a computer system that receives orders for different resources from different users. The computer system then calculates an array of coefficients each representing the proportion of a particular order that is to be satisfied. This claimed subject matter is analogous to the subject matter at issue in State Street Bank & Trust v. Signature Financial Group {cite}. In this case, the Federal Circuit held that the transformation of data by a machine through a series of mathematical calculations into a final share price constitutes a practical application of a mathematical

algorithm because it produces a useful, concrete and tangible result. Likewise, the optimized coefficients representing the portion of an order that is to be satisfied constitutes a practical application. It is not necessary that post-computer process activity be recited in the claims. Contrary to the Examiner's assertion, Applicant believes that pending claims are directed to statutory subject matter.

The Examiner's attention is also drawn to Claim 3 of the present application. This claim further recites that the processing means process an order based on the optimized coefficients for that order. For at least these reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection.

#### **REJECTION UNDER 35 U.S.C. § 112**

Claims 6, 24, 33, 52 and 55 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed. Claims 6, 33, 52 and 55 have been amended to provide proper antecedent basis for the current exchange rate, thereby overcoming this rejection. Therefore, Applicant respectfully requests reconsideration and withdrawal of this rejection.

#### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-4, 7-17, 19-21, 25, 27-31, 34-44, 46-49, 53 and 56-57 stand rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 5,845,266 (Lupien). This rejection is respectfully traversed.

Lupien is directed generally to an automated crossing network (also known as a matching system) for trading instruments. The disclosed mechanism maximizes the total mutual satisfaction of a set of traders based on individual satisfaction density profiles. Traders are either buyers or sellers of one asset against another asset. Satisfaction profiles are represented as a data pairs, where the first datum is the number of units of a first asset is being bought by a buyer and the second datum is the price or number of units of the second asset being exchanged for one unit of the first asset. Thus, satisfaction profiles are matrices. The automated mechanism commences with a set of buyers and sellers defining and communicating a matrix to each other. The outcome is then a set of trades or transactions between a buyer of the second asset against the first and a seller of the second asset against the first. Thus, the overall teaching of this reference is based on a matrix whose elements represent the degree of satisfaction to trade an instrument.

In contrast, Applicant's invention is directed generally to an architecture suitable for a global matching system. Applicant's claimed invention defines a specific technical configuration of data structures and servers which are uniquely suited to a global matching system and is not suitable for a binary matching system or pool allocation system. Of particular interest, Claim 1 recites "an array of coefficients each representing the proportion of a particular order that is to be satisfied" in combination with other elements of the claim. The satisfaction density profiles are not analogous to this array of coefficients. Thus, Lupien fails to teach or suggest an array of coefficients as recited in the pending claims. It is noteworthy that a concurring conclusion was reached by the European Patent Office in an opposition proceeding of a counterpart

European patent. Therefore, we feel that the pending claims define patentable subject matter over the cited reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

**CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: September 22, 2006

By:   
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Timothy D. MacIntyre  
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TDM/drl

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

SEP 22 2000



		Application Number	09/508,778
		Filing Date	May 15, 2000
		First Named Inventor	Benedict Seifert et al.
		Group Art Unit	2768
		Examiner Name	
Total Number of Pages in This Submission		Attorney Docket Number	3711-000105

## ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Response	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	One (1) sheet of PTO-1449
<input checked="" type="checkbox"/> Supplemental Information Disclosure Statement	<input type="checkbox"/> Request for Refund	Five (5) U.S. Patent Documents
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
	Remarks	The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name W.R. Duke Taylor	Reg. No. 31,306
Signature			
Date	January 13, 2004		

## CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below.

Typed or printed name	W.R. Duke Taylor	Express Mail Label No.	EV 406 075 776 US (1/13/2004)
Signature		Date	January 13, 2004

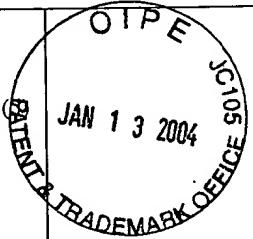


Applicant:	Benedict Seifert et al.	Case No.:	3711-000105
Serial No.:	09/508,778	Filing Date:	May 15, 2000

Title: ORDER PROCESSING APPARATUS AND METHOD

Please acknowledge receipt of:

Transmittal Form (in duplicate), Supplemental Information Disclosure Statement, one (1) sheet of Form PTO-1449, five U.S. Patent Documents



By stamping and returning to Harness, Dickey & Pierce, P.L.C.	USPTO Date Stamp
Due:	Date Mailed: 1/13/04 Attorney: WRDT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

Application No.: 09/508,778

Filing Date: May 15, 2000

Applicant: Benedict Seifert et al.

Group Art Unit: 2768

Examiner:

Title: ORDER PROCESSING APPARATUS AND METHOD

Attorney Docket: 3711-000105

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Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A.  Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B.  Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were

previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C.  Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D.  This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. Since the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A.  Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B.  A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1.  See the attached foreign patent office communication from a counterpart foreign application;
2.  English translations are provided;
3.  Other:

C.  The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A.  The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

<u>Serial No.</u>	<u>Filing Date</u>	<u>Art Unit</u>
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V. THIS IDS IS BEING FILED UNDER

A.  **37 C.F.R. § 1.97(b):** (check only one box)

1.  within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.
2.  within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.
3.  before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required.
4.  before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B.  **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1.  No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
2.  See the certification below. No fee is required.

C.  **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1.  See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A.  each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B.  no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C.  some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. 1.704(d)

The undersigned hereby states that:

each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VI. PAYMENT OF FEES (check only one box)

A.  A check in the amount of \$180.00 is enclosed for the above identified fee.

B.  Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Dated: JAN 12, 2009

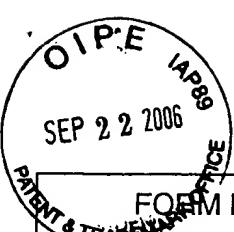
Respectfully submitted,

By:

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SEP 22 2006

FORM HDP-1449 (Based on Form PTO-1449)		ATTORNEY DOCKET NO.	SERIAL NO.
		3711-000105	09/508,778
		APPLICANT	
		Benedict Seifert et al.	
		FILING DATE	GROUP
		May 15, 2000	2768

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 1 of 1

**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		3,573,747	4/1971	Adams et al.		
2.		4,412,287	10/1983	Braddock, III		
3.		4,903,201	2/1990	Wagner		
4.		5,136,501	8/1992	Silverman et al.		
5.		5,563,783	10/1996	Stolfo et al.		

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.							

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
1.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.